USER'S GUIDE

SUPER

Dark Box HD Rev 2008 – S HD CXCI

Dark Box HD Rev 2008 – Combo HD CXCI

HIGH-DEFINITION DIGITAL SATELLITE

(OPTION : TERRESTRIAL) CONAX WITH

2 COMMON INTERFACE

PREFACE

1 OVERVIEW

1. INTRODUCTION
2. FEATURES
3. ACCESSORIES
4. REMOTE CONTROL UNIT
5. FRONT PANEL
6. REAR PANEL
7. CONNECTION DIAGRAM

2 OPERATION

1. START UP
2. INSTALLATION
3. CHANNEL EDIT
4. USER SETUP
5. SYSTEM SETUP
6. USB MODE
7. COMMON INTERFACE
8. CHANNEL LIST
9. PROGRAM GUIDE
10. AUDIO CHANGE
11. RECALL THE FAVORITE CHANNEL
12. TELETEXT
13. SUBTITLE

3 SPECIFICATIONS

4 TROUBLE SHOOTING

1. OVERVIEW

1. INTRODUCTION

This product is designed for using Digital Satellite (Option : Terrestrial) and allows you to enjoy a lot of broadcasting whenever you want to watch it anytime. By simply pressing the button of the remote control unit, the vivid picture and life –like sound of digital broadcasting that your TV portrays through this product, allows you to watch whatever channel you wish of the digital broadcasting.

Through this manual you will notice that the operation is easy to use.

This manual will help you get the most from this product and guide you through Installation, channel selection and many other functions.

In case you experience any difficulties to use this product, please consult the relevant section of this manual.

From now on, enjoy digital broadcasting with digital satellite (Option : Terrestrial) receiver!!!

2. FEATURES

2.1 Key Features

- Full Compliant of MPEG-S & DVB-S2 Digital & DVB broadcasting
- Standard Definition/High Definition contents (MPEG2 and support MPEG4 AVC/H.264)
- High Definition Video output . HDMI(HDCP) and Component (YPbPr)
- Event Timer by EPG
- Audio Decoding :ISO/IEC13818-3(MPEG-2 audio/MUSICAM) Dolby AC-3
- User selectable output resolution
- Integrated USB 2.0 (Host) . Support to USB Memory stick
- Software upgrade via USB

2.2 Main Features

- 950-2150 MHz input Frequency (IF Loop Throughout))
- Satellite Scan - Simultaneous Scan with 10 Satellites
- Flexible reception of SCPC & MCPC from C/Ku-Band Satellites
- Variable input Symbol Rate (1-45 Msps)
- Video output resolution: 576p,720p,1080i
- EPG (Electronic Program Guide)
- 11 Multi Language OSDs
- Fast Channel Change
- 10,000 Channels TV & Radio program
- Timer Function (Automatic Turn On/ Off by Setting Function)

- RTC (Real Time Clock)
- PIG (Picture In Graphic)
- 5 Favorite List & Unlimited Programs per each
- Powerful Channel Editing Function
  - Sorting: Alphabetic, Satellite, Parental Lock, CAS, S-ID, TP Order, All
  - Move, Delete, Favorite Edit
  - Parental Lock, Channel Rename, Channel Skip
- Manual PID/ Satellite & TP/ Network Scan
- S/PDIF (Digital Audio or Dolby AC3 stream out)
- DiSEqC 1.2 and USALS Compatible
- Comparable of Setting the Frequency for SMATV System
- Dolby Digital Decoder

3 PLEASE CHECK THE FOLLOWING ACCESSORIES ARE ENCLOSED

- User Manual 1 Set
- Remote Control Unit 1 Set
- Batteries (AAA Type) 2EA
- HDMI Cable 1EA
- 3 Pin UK Connector (Option) 1EA

Note !

If any of the accessories listed above are missing, please contact the sales outlet where this product was initially purchased.

4. HOW TO USE THE REMOTE CONTROL KEY

Key	Function
	Turn the selected equipment on/off
	Sound Off/On
TV/RAD	Toggle between the TV service and radio
Multi	Multi feed Program
AUDIO	Select audio mode (Stereo, left only and right only) Select language in case of Multilingual program
SAT	Enter programmed satellite list
0~9 -	Change channel directly
	Execute page up function in the menu
	Execute page down function in the menu
MENU	Enter main menu screen.
EXIT	Move to upper menu
 VOL ◀I▶	Volume down/up Change the value of a selected line
 ▲CH ▼	Channel up/down Moves the cursor upward/downward in the menu screen
OK	Show channel list. Confirms selection
EPG	Show program information
Info	Show channel information, such as channel number, channel name, frequency, polarity, symbol rate, scrambled/Dolby/favorite/lock
V Format	Change the output resolution (Component & HDMI only)
SIG	Show signal quality
FIND	Quick channel find
TIME	Time show current time
FAV	Enter Favorite Program
TTX	Show Teletext

Sub.T	Available for Teletext Subtitle DVB-Subtitle later
LAST	Return to previous program
PAUSE	Hold the picture or release the pause

Operating Principle

- Select an item by using up and down key and change the value of the highlighted (selected) item by using keys shown on the screen. Press OK to enter to the sub-menu if there is no instruction marks on the screen.
- The items are automatically stored and moved the upper menu by pressing the 'EXIT' key
- You can return to normal mode at any time by pressing the menu key from the menu mode

5. FRONT PANEL

1. **POWER**

To put Power in and out of standby mode.

2. **CHANNEL**

To move up and down in the menus, To change channels.

3. **VOLUME**

To make volume up and down & to change the value of a selected line

4. **Menu**

To enter main menu screen.

5. **Exit**

To move to previous upper menu.

6. **OK**

To confirm selection.

7. **Display**

To show channel service name number, resolution, remote control commands and time in standby mode.

8. **CAM Slots**

2 slots for common interface (PCMCIA) .

9. **CA**

1 smart card reader.

10. **USB**

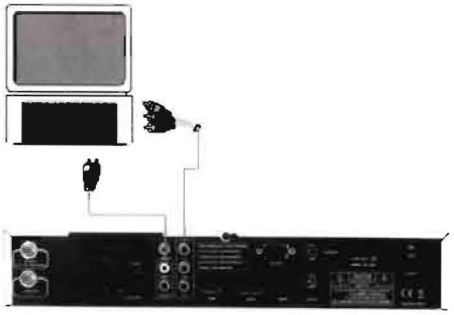
Connect to USB mass storage device for s/w upgrade.

6. REAR PANEL

NO	NAME	FUNCTION
1	IF INPUT	IF INPUT from LNB to receiver
2	IF OUTPUT	IF Loop-through output to 2nd receiver
3	TV Scart	TV Scart Output
4	VCR Scart	VCR Scart Output
5	VIDEO	Composite Video Output
6	AUDIO L	Left Audio Output
7	AUDIO R	Right Audio Output
8	Y	Component Video Output
9	Pb	Component Video Output
10	Pr	Component Video Output
11	HDMI	HDMI Output
12	eSATA	SATA output to external HDD (This eSATA will be available later)
13	S/PDIF	For Digital Audio Output
14	'RS232	Serial port used for Software upgrade
15	ANTENNA	Input from terrestrial antenna (option)
16	TV / VCR	Antenna signal loop out (option)
17	AC Switch	AC Power On / Off
18	TV OUT	Output to TV (option)
19	ANT IN	Input from off air TV or cable etc (option)

7. CONNECTION

<Connecting to digital TV which can support HD resolution (1080i,720p,576p) using YPbPr port>



1. Connect STB's YPbPr OUT and audio L/R OUT to YPbPr IN and audio L/R IN of TV.
2. Set STB's video output mode to 1080i or 720p or 576p using 'V.Format' key of remote controller.
   Please check TV's user manual for detail connecting method of the YPbPr input port.

<Connecting to PC monitor or digital TV which has HDMI input port>

1. Connect STB's HDMI OUT to HDMI IN of monitor or TV.
2. Set STB's video output mode to 1080i or 720p or 576p using '**V.Format**' key of remote controller.

For the best access to HD programming at the highest available resolution, use this connection method.

<Connecting to A/V receiver (Dolby digital amplifier)>

1. **Connect STB's optical audio out to A/V receiver.**
2. **Press Audio key and sets "Dolby digital Language."**

Menu Map

1. INSTALLATION

1.1 Satellite Setup

- 1.1.1 Antenna Setup
- 1.1.2 Satellite Scan
- 1.1 3 Advanced & TP Scan
- 1.1.4 Edit TP/ Satellite

1.2 DVB-T Setup

- 1.2.1 Automatic Scan
- 1 2.2 Manual Scan
- 1.2.3 Antenna Power

2. EDIT

2.1 Channel Edit

- 2.1.1 Sort, Move, Delete, P-Lock, Skip, Rename

2.2 Favorite Edit

3. User Setup

4. System Setup

3.1 Timer Setting

3.2 Parental Control

3.3 Language Setting

3.4 AV Setting

3.5 OSD Setting

4.1 System Information

4.2 Factory Setting

5.USB

5.1 Channel Data

5.2 Code

6. Common Interface

6.1 SLOT A/B

6.2 Embedded Slot

2. OPERATING

1. Start Up

Please follow the brief procedure below and watch the satellite programs.

1) Select the language
2) Select the antenna setup in main menu screen
3) Adjust LNB configuration per each satellite
4) Execute scanning to find program
5) Exit from installation after all programs are searched.

1.1 Language

When the receiver is turned on for the first time, the language selection menu is appeared as in the Fig 1-1.

Select the desired language and press OK to confirm it.

This Receiver supports 11 **languages.**

English, German, French, Portuguese, Spanish, Turkish, Italian, Arabic, Czech, Polish, Dutch

2. Installation

Press the OK key. Antenna setup is appeared on screen as upper figure. Channel edit is not accessible until satellite channel scanned and saved.

2.1 Antenna Setup

In this section, all parameters can be set to get enough signal & quality levels to be locked

2.1.1 Satellite

Select the satellite by using ▼▲, ◄ ► and press OK to enter

2.1.2 LNB type

Select LNB type using ◄ ► keys.

There are 7 LNB alternatives.

- Universal 1 (9750MHz & 10600 MHz)
- Universal 2 (9750MHz & 10750 MHz)
- Single-SL (5150MHz & 5750 MHz)
- Single-SH (5150MHz & 5750 MHz)
- Standard (User can define)
- Single Stack (10750(V)MHz or 10175(H)MHz)
- Dish Pro

22KHz control is automatically set for each LNB alternative or you can change it by yourself.

2.1.3 LNB Local-Freq

If the required LNB frequency is not available, select "Standard" and then input the frequency manually using the numeric keys

2.1.4 22Khz

In case you are using a Dual LNB or two antennas connected to a 22KHz tone switch box, make 22KHz tone switch "ON" or "OFF" to select an LNB or an antenna

2.1.5 DiSEqC

- DiSEqC 2X1 & 4X1 is usually available.
- Select the port connected to the LNB or LNBF.

2.1.6 Positioner Setting

It is used to set the DiSEqC 1.2 or & USALS motor.

If you have no positioner equipment, select "Disable". Otherwise, you can select either DiSEqC 1.2 or USALS

1) DiSEqC 1.2 (manual operation)

(1) Current position

Select the position number by using ◄ ► keys (#0~#26 default define, #27~#49: user define)

(2) Movement

Select East / West by using ◄ ► keys.

(3) Store

Please select "Store" and the current position will be saved.

(4) East Limit Set

Move the position to the most eastern position and press **OK** then East Limit is stored.

(5) West Limit Set

Move the position to the most western position and press **OK** then West Limit is stored.

(6) Limits Disable

Select Disable limits by using **OK** key

(7) Go to reference

Select go to reference by using **OK** key

If the motor shifted to one side (usually it happens after used), you can resynchronize by using DiSEqC 1.2 "go to reference" and then go back to programmed mode

2) USALS (DiSEqC 1.3) – automatic operation

(1) Satellite Position

It points out the position of saved satellite. You can change the position of the satellite by numeric keys.

(2) My Longitude

Please input Local Longitude by numeric keys

(3) My latitude

Please input Local Latitude by numeric keys

(4) Reference position

This is the same as DiSEqC 1.2 Reference

(5) Move

The satellite's position of (1) and the one calculated by value of (2) & (3) will be shown. Press **OK** key and it will move.

(6) Store

Please select "Store" and the current position will be saved.

2.1.7 TP

Select a specific transponder by using the ◄ ► keys

2.1.8 Satellite Scan

After all LNB setting is finished, adjust antenna direction toward satellite until signal & quality level maximized. Then select and confirm Satellite Scan to start scan and saved.

Below the Menu, Signal and Quality will be displayed in the screen.

2.1.9 Auto DiSEqC

Select a Auto DiSEqC setting by using the RCU Green keys.

2.2 Satellite Scan

Scan all the transponder of selected satellites.

(1)Press **OK** key and select wanted satellite by using ▼& ▲keys.

(If you want to scan several satellites once, you can control ◄ ► keys.)

Then press **OK** key to execute scanning.

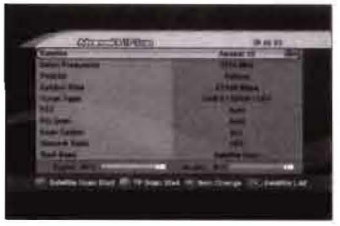
(2) You can select satellite whatever you chose though.

(3) Transponder will be consecutively scanned all selected satellites

2.3 Advanced & TP Scan

2.3.1 Satellite

Select a satellite by using ◄ ► keys Select items in the list and press **OK.**



2.3.2 Down Frequency

Input the Frequency that is down converted through LNB in common

When you press OK key, TP List will be displayed and if you press Left / Right key on the RCU, you can select Multi TP.

2.3.3 Polarity

Select Horizontal or Vertical by using ◄ ► keys.

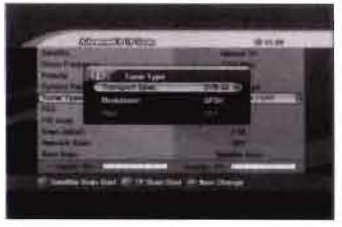
2.3.4 Symbol Rate

Input correct value using numeric keys.

2.3.5 Tuner Type

DVB-S(QPSK), DVB-S2(QPSK), DVB-S2(BPSK)

When you press OK key Tuner type will be displayed and if you press ◄ ►, ▼▲ key on the RCU, you can select Tuner Type



2.3.6 FEC

Select items in the list by using ◄ ► keys

2.3.7 PID Scan

You can set PID to search for services.

Select items in the manual mode by using OK keys.

Use the ▼▲ key or numeric key to input the value.

2.3.8 Scan Option

Select Scan Option by using ◄ ► keys (ALL, FTA).

2.3.9 Network Scan

Select 'ON' or 'OFF by using ◄ ► keys

2.3.10 Start Scan

After all setting is finished, then press **OK** to search in Scan Start (For Satellite Scan or TP Scan).

2.4 Edit TP/Satellite

In this mode, you can add the New Satellite and the New transponder information.

Also you can update or delete the transponder information.

2.4.1 How to add a new satellite

- Select "New" in the satellite name by using CH ▲▼ keys. Press VOL ◄ ► keys to move digit.
- Maximum number of characters is 12-digit.
- Press **OK** key.
- Enter the Down frequency, Symbol Rate, LNB Polarity, Tuner Type, Modulation, FEC.
- Press **EXIT** or **OK** key, then new transponder information is stored

2.4.2 How to rename a satellite

- Press **OK** after selecting a satellite of which you want to change name.
- Select "Rename" in the menu.
- Enter new name by using VOL ◄ ► Keys CH▲▼ keys and press **OK** key.

2.4.3 How to Delete/Restore a satellite

- Press **OK** key after selecting a satellite you want to delete.
- Press **OK** to confirm, otherwise press **EXIT** to cancel. The color of the deleted satellite name in the list is changed.

- The satellite which has had already searched channels cannot be deleted.
- To restore the deleted satellite, move the cursor to the deleted satellite and press **OK** key. Then select "Restore" in the screen and press **OK** key

2.4.4 How to add a new transponder

- Press **OK** after selecting a satellite
- Select Edit TP and then Transponder list is shown.
- Press **OK** key selecting "NEW" in the transponder list
- Enter the Down frequency, Symbol Rate and LNB Polarity, Tuner Type, Modulation, FEC.
- Press **EXIT** or **OK**. Then new transponder information is stored.

2.4.5 How to delete or update a transponder added

- Press **OK** key after selecting a satellite
- Select Edit TP, then transponder list is shown
- Select a transponder you want to delete or update
- Press **OK** on the TP you want to Edit or Delete.
- You can see the Edit or Delete in the small-menu.
- In case you want to edit a TP list,

  Select EDIT and press **OK** key.

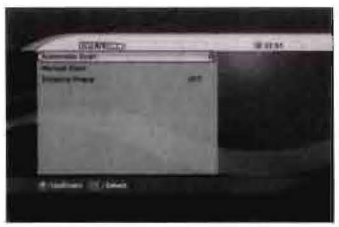
  Enter Down frequency, polarity and Symbol Rate, Tuner Type, Modulation, FEC and press **EXIT** or **OK**

  Then New TP date is automatically updated
- In case you want to delete a TP

  Select Delete in the small menu, press **OK** key.

  Then the TP selected is deleted.

2.5 DVB-T Setup (Option)



2.5.1 Automatic Scan

In the menu, You can set terrestrial channel automatically.

(1) You can adjust the start and end frequency by using ◄ ► Key.

(2) Press the OK to start channel searching.

2.5.2 Manual Scan

Manual search is more convenient to search a specific MUX.

This menu searches also all channels broadcasted over a specific MUX using its detected information

(1) Select the "manual Scan" on the terrestrial setup menu.

(2) You can adjust the channel (MUX) by using ◄ ► Key.

(3) You can input by numeric keys. It has basic frequency on channel.

(4) You can select "Disable" or "Enable" of network scan by using ◄ ► Key.

(5) You can select 7 or 8MHz Bandwidth by using ◄ ► Key.

(6) Press the OK key to start channel searching.

2.5.3 Antenna Power

(1) Select the "Antenna Power"

(2) You can switch the power supply On or Off.

3. Channel Edit

3.1 Channel Edit

You can edit channels of Satellite in this mode.

(1) You can sort the channels out upon your preference.

(2) You can rearrange the channel list

(3) You can delete channels

(4) You can select P-Lock Menu.

(5) You can skip channels

(6) You can change the channel name, as you want.

3.1.1 How to sort the channel

(1) Press OK after selecting Sort

(2) Sub mode will be appeared as follows

- ALL
- A-Z
- SAT
- TP order
- CAS
- P-Lock
- S-ID

Select the mode that you want to sort and press **OK**

(3) Press **EXIT** to exit from this mode

3.1.2 How to move the channel

(1) Press **OK** key after Selecting **Move** key

(2) Press ◄ ► keys to select a channel to move and then move the selected channel to the new position by using CH ▲▼ keys.

(3) Repress ◄ ► keys

3.1.3 How to delete the channel

(1) Select Delete and press **OK**

(2) Select a channel you want to delete by using the **OK** or ◄ ► keys

(One channel, All channel, Satellite, DVB-T (option)).

(3) Press **OK** key.

(4) All channels that you selected are deleted.

3.1.4 How to lock/unlock the channel

(1) Select P-LOCK and press **OK**.

(2) Select the channel that you want to lock and press ◄ ► keys

(3) This channel is now locked and the symbol of lock will be shown as a locked channel.

(4) You can release the locked channel if you press ◄ ► keys after selecting the locked channel

(5) Once locked channel is selected while watching television, password is requested

(6) Picture and sound is appeared after the correct password is given by pressing the numeric key.

3.1.5 How to SKIP the channel

(1) Select SKIP and press **OK**

(2) Select the channel that you want to hide and press ◄ ► keys

3.1.6 How to rename the channel

(1) Press **OK** after selecting RENAME mode

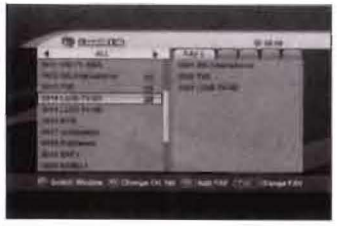
(2) Select the channel of which you want to change name

(3) Press **OK** to enter the character input mode

(4) Put new names, as you want using the 4 arrows keys. The maximum number of characters is 20.

(4) After completion of entering new, press **OK**

3.2 Favorite Edit



(1) Select one channel of channel list.

(2) Press **OK**, then this channel is moved to the favorite channel list.

(3) For deleting a channel from the favorite list, press **RCU RED** key to go to Favorite List, select one channel to delete and press **OK**. The selected channel disappears in favorite list.

4. User Setup

In this USER SETUP mode, you can select the sub-mode by pressing **OK** and CH ▲▼ key

The changed set-up is activated and stored by pressing **EXIT** key.

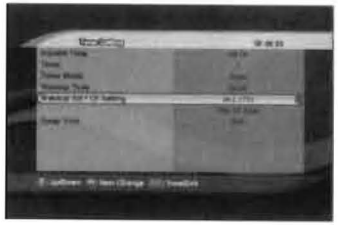
4.1 Time Setting

4.1.1 Current Time

After selecting Time mode, you can adjust the time as follows.

- Time zone
- Summer Time
- Current Year > Set up by pressing numeric keys
- Current Month / Day> Set up by pressing numeric keys
- Current Time> Set up by pressing numeric keys

4.1.2 Timer



After selecting Timer, you can see Timer list and adjust the time as follows.

- Timer Mode > Once, Daily
- Wakeup Time > Set up by pressing numeric keys
- Wakeup Sat / Ch setting
- Sleep Time > > Set up by pressing numeric keys

4.2. Parental Control

After selecting Parental control and entering the correct password,

the screen as shown in the right appears. The default password at the factory

is "0-0-0-0"You may change the PIN code, which is your password

in other words, and lock the receiver to prevent children

from watching programs.

4.2.1 Menu Lock

If you select "ON", you will have to enter the PIN code every time when you enter the menu key.

4.2.2 Rating

You can set an age limit (All, 12, 15, 18).

4.2.3 Change PIN Code

You can change the PIN Code (Password) if you want.

(1) Enter the new password.

(2) Reenter the new password to confirm.

Warning!

You must remember the exchanged password because it is used in several Functions as follows.

Password required

(1) To show parental locked channels

(2) To enter Parental Control menu

(3) To execute factory setting

(4) To Video Format Change Menu

(5) To enter main menu (In case of menu lock)

4.3 Language

4.3.1 OSD Language

Press **EXIT** key after you select your preferable language and audio language by using VOL ◄► keys.

English, German, French, Portuguese, Spanish, Turkish, Italian, Arabic

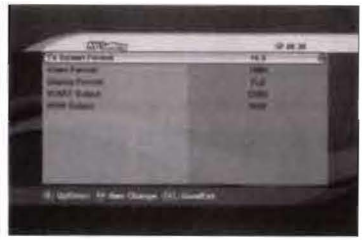
4.3.2 Audio Language

Select the preferable Audio language by using the ◄ ► keys

4.3.3 Subtitle Language

Select the preferable Subtitle language by using the ◄ ► keys

4.4 A/V Setting



4.4.1 TV Screen Format

You can set the TV aspect ratio (4:3 for normal TV & 16:9 for wide TV) by pressing VOL ◄► keys

4.4.2 Video Format

You can set it by pressing VOL ◄► keys (1080i, 720p, 576p)

When you change Video Format, enter the Password.

4.4.3 Display Format

You can select Full or Letter Box.

4.4.4 SCART output

You can set it by pressing VOL ◄► keys (RGB, CVBS, S-VIDEO)

4.4.5 HDMI output

You can set it by pressing VOL ◄► keys (RGB, YCbCr)

4.5 OSD Setting

You can adjust the transparency level and Banner timeout, screen saver timeout by using ◄► key

5. System Setup

5.1 System Information

Show the information of model name, data and version of STB.

5.2 Factory Setting

Once the Factory setting is selected and the collect password is given by pressing 4-digit numeric keys followed by OK key, whole parameters are changed to the value written in the factory. That is, factory setting functions your STB (Set Top Box) the first stage. If you do not want to continue this mode, press **EXIT** key before you enter password.

Common password is "0000".

You can select factory setting as follows:

-Channel Data default setting

-All Data default setting

6. USB Mode

Warning!

Please use USB Memory Stick only.

Don't use any other product like USB Charger.

Don't use USB related products which cannot meet DC5V, & Max .100mA.

1. USB menu can be watched after inserting USB Stick in Normal Video mode and the Menu list can be displayed.
2. Flash ROM Writing file is in Code Backup folder and Channel Data is in Channel Data Backup folder.
3. Select Flash ROM Writing file and press '**OK**' API Code Transfer Menu is displayed and API Code Download is executed.
4. After API Code Download is done, "Complete" message is displayed and then the receiver starts rebooting.
5. Select the file in Channel Data folder and press '**OK**' key. Channel Data Transfer Menu is displayed and Channel Data download is executed.
6. API Code and CH Data uploading is possible.
7. In API Code uploading API code is saved in Code Backup folder of USB and in Channel Data uploading Channel data file is save in Channel Data Backup folder of USB. Selected files (up to 20) will be played one by one.

7. Common Interface & CAS

7.1 CI

Select "Common Interface" menu in Main Menu and the following screen will be displayed.

When a Common Interface module (CAM) is inserted inside the PCMCIA slot, the receiver detects the type of the CAM automatically and displays the name on the menu screen.

On choosing this menu, you can access different options available with the type of the CAM e.g. Consultation, Authorization, Module Information and etc.

The user can receive the scrambled channels with a smart card and a common interface CAM (Conditional Access Module). If you want to subscribe the service more than CA service, you have to change with different Smart Card and CAM.

7.2 Embedded CAS

• If you insert **SMART CARD** into the receiver's smart card reader the receiver will recognize it automatically

8. Channel List

- You can see the channel list as shown in the above figure by pressing OK key
- To watch another channel, move the cursor to the channel you want by using ▲▼ PG↑ PG↓ and press **OK** key
- If favorite channels are saved, the list is changed from channel list TV to favorite list
- Pressing **TV/RADIO** key changed list Radio, you can exit from the list menu by pressing **EXIT** key.

8.1 Red Button

If you press the red button, you can sort the channels by Satellite, Alphabet, CAS.

8.2 Green Button

If you press the green button, you can find the channels including the alphabet which you insert.

9. Program Guide

- The title and start time of the program is shown as in the right figure after pressing EPG key.
- Select the particular channel you. The channel will be changed.
- If you want to watch TV with full screen, Press EXIT.

When you press the RED key on the RCU, Single Channel Mode will be executed.

10. Audio change

- In multilingual program, favorite language is selected by pressing **AUDIO** key and CH▲▼ keys
- Audio mode (L-left, R-right, L/R-stereo) can be Changed by pressing **AUDIO** key and VOL ◄► key.

11. Recall the Favorite channel

- Press **FAV** key to recall a stored favorite channel.
- Favorite channel is programmed and stored in the Favorite Edit menu.

12. Teletext

On some services, such information as weather reports, news or stock quotations is provided by means of teletext.

If the current service provides teletext, the teletext symbol will be displayed on the information box

1. Press "TTX" key.
2. The teletext screen shows.
3. Press "EXIT" or "TTX" key to exit.

13. Subtitle

Some programmes are provided with subtitle tracks in one or more languages.

When the subtitle data in the channel,

1. Press "Sub" key.
2. Select language that you want.
3. Select "Off" in the subtitle menu to exit.

3. SPECIFICATION

Tuner / LNB (Satellite)

1 Input Connector	F-type, IEC 169-24
IF Input Frequency	950MHz to 2150MHz
IF Loop Throughout	950MHz to 2150MHz
Input Level	-65 dBm~-25 dBm
LNB Power	13 /18VDC / 500mA Max
DiSEqC Control	1.0,1.2 &USALS compatible
Band Switch	22KHz Tone(22 +/- 4KHz,Amplitude 0.6 +/- 0.2V)
Modulation method	LDPC/BCH(DVB-S2) 8PSK/QPSK, DVB-S QPSK
Symbol Rate	LDPC/BCH(DVB-S2) 8PSK/QPSK 10~30Msps DVB-S QPSK 1~45Msps
Viterbi Decoding Rate	1/2,2/3,3/4,5/6 and 7/8
Band width	36MHz
LDPC/BCH	Punctured Code ,1/2,2/3,3/4,3/5,4/5,5/6,8/9,9/10 in DVB-S2

Tuner / Channel (Terrestrial) - Option

Input Connector	IEC-Type IEC 169-24, Female
VHF	174MHz ~ 230MHz
UHF	470MHz ~ 860MHz
Input Level	-90dbm ~ -15dbm
Guard internal mode	1/32, 1/16, 1/8, 1/4 Aclive symbol duration
Demodulation	OFDM 2K / 8K Carrier
Band Width	7MHz / 8MHz (Europe)
Viterbi Decoding Rate	1/2, 2/3, 3/4, 5/6, 7/8
Reed Solomon Decoding	FEC 204, 188, t=8
Antenna Power	5V

MPEG transport Stream A/V Decoding

Demultiplex	According to ISO/IEC 13818-1(MPEG-2 system)
Input syream	Max. 90Mbit/s
Aspect Ratio	4:3(default), 16.9 letterbox
Vidoe Deocding	ISO/IEC 13818-2(MPEG2 vidoe) MP@HL,ISO/IEC 14496-10 HP@L4
Video Resolution	576p,720p,1080i
Audio Decoding	ISO/IEC13818-3(MPEG2 audio/MUSICAM), Dolby AC-3

Audio Mode	Single Channel /Dual Channel, Stereo, Joint Stereo
Video Ouput	HDMI/HDCP (Option),SCART,RCA

Microprocessor & Memories

CPU Clock	280MIPS
Flash Memory	4 Mbyte
SDRAM	160 Mbyte
EEPROM	32 Kbit

A/V output

Digital output	HDMI/HDCP (Option), YPbPr
TV SCART	Video output(CVBS,RGB,S-Video),Audio left/right
VCR SCART	Video input(CVBS), Vidoe output(CVBS) ,audio in/output (left,right)
Video RCA	1 output
Audio RCA	2 output
Digital Audio	1 optical output S/PDIF

Front Panel

VFD	Ch. Service Name Display
8 keys	Power, Channel Down/Up, Volume up/down, Menu, Exit, OK
USB	USB2.0 Host
Smart Card Reader	Conax CAS 7 Embedded
Common Interface	2CI Slots

Rear Panel

IF Input	F-type Connector
IF Loopthrough output	F-type Connector
Antenna	1EC-Type connector (option)
TV / VCR	1EC-Type connector (option)
6RCA	Video, Audio L, Audio R, YPbPr
Scart	TV / VCR
S/PDIF	Optical
HDMI	Type A
SATA	eSATA will be available later
RS232	9 Pin D-Sub Type
Modulator	Channel 21-69

Remote Control

Type	IR RCU
Battery	2x1 5V AAA Type

Electrical and Mechanical

Input Voltage	AC 90-250V, 50/60Hz
Power Consumption	Max. 45 Watts
Standby Power	Max 18 Watts
Dimension (WxDxH)	340x245x65mm
Weight	3.0kg

4. TROUBLE SHOOTING

There may be various reasons for the abnormal of the unit. Therefore, if the unit does not work properly, Check the unit according to the procedures shown in the table below.

Problem	Possible causes	Remedy
VFD on front panel Does not light	AC Power cord disconnected	Connect power cord properly into the power socket
No Picture or Sound	Wrong connection of the Video/audio output to TV input Terminal	Connect two terminals correctly With HDMI or scart cable or RCA cable
	Wrong connection of antenna cable	Connect the antenna cable Correctly
	Wrong direction of antenna	Adjust the direction of antenna
	No signal or weak signal	Check the cable connections.
	Wrong setting of channels Information in MENU screen	Type the setting value correctly
Black-and-white Screen or V-Hold	Your TV mode is different from broadcasting mode	Use TV of same mode Connection to the receiver and TV
The remote controller is not working	Battery exhausted	Change the batteries
	Fluorescent light interfering with the remote controller	Switch off the light
	Remote controller is incorrectly aimed	Aim the remote control at the receiver
Distorted menu screen	Too high brightness and contrast level of TV set	Adjust brightness and contrast to low level
Not working	Process Down	Remove the power code or AC switch OFF/ON

Declaration of Conformity

The equipment specified above is in compliance with European Directive 95/47/CE concerning emission of TV signals acknowledged in Italy as by law enacted D.L. n 191 of May 17th 1999.
In particular this equipment is in compliance with requirements decided from technical joined committee (JTC) UER/ETSI/CENELEC standard "DVB" Digital Video Broadcasting

CE

The equipment specified above conforms to the following Directives .
73/23/EEC 93/68/EEC Low Voltage Directive
89/336/EEC 92/31/EC 93/68/EEC 2004/108/EC EMC Directive

Correct Disposal of this Product
(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)
This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.